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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,974	02/21/2000	Rex Petersen	10001834	1706

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EXAMINER

WHITMORE, STACY

ART UNIT

PAPER NUMBER

2812

DATE MAILED: 07/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/510,974

Applicant(s)

PETERSEN ET AL.

Examiner

Stacy A Whitmore

Art Unit

2812

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

FINAL ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. The rejections set forth in the office action dated January 18, 2002 are respectfully maintained.
3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ho (6,128,768).
4. As for claims 1 and new claim 21, Ho taught a method for VLSI chip design comprising the steps of:
  - (means for) estimating signal routes between functional blocks [abstract – connectivity based database....organized by net -; col. 1, lines 29-40; col. 4, lines 44-59; see also fig. 1b elements 143, 147, and 149; col. 5 – 6, and col. 10];
  - (means for) determining R and C values for the estimated signal routes; and
  - (means for) building a model of said signal routes including R and C values [col. 5, lines 34-45; col. 5, line 66 – col. 6, line 7, and lines 24-33] [the means for limitation is met by Ho's use of computer hardware and software].
5. As for claim 2, Ho taught foliating nodes in estimated signal routes [col. 5, line 9, and col. 6, line 45, see also fig. 9, technology and interconnection sections].  
As for claim 3, Ho taught generating a connectivity net list from said model [col. 5, lines 18-26].
6. As for claim 4, Ho taught said step of estimating is performed based on input of a floor plan and a connectivity description [col. 4, lines 43-59].
7. As for claim 5, Ho taught said step of estimating is performed in response to one or more control factor inputs [col. 5, lines 61-66].

8. As for claim 6, Ho taught said control factor input specifies a signal routing algorithm [col. 10, lines6-10].

9. As for claim 7, Ho taught said step of estimating is performed based on input of signal path configuration parameters [col. 10, lines6-10].

10. As for claim 8, Ho taught said signal route configuration parameters specify one or more signal path material, physical size of signal path material or spacing [col. 10, lines6-10].

11. As for claim 9, Ho taught step of estimating is performed in response to one or more control factor inputs [col. 10, lines6-10].

12. As for claim 10, Ho taught said control factor input specifies a signal routing algorithm [col. 10, lines6-10].

Claims 11-20 are apparatus claims which have correspondingly similar limitations as claims 1-10, and are rejected for the same reasons as cited in the rejection s of claims 1-10.

Applicant's arguments filed May 3, 2002 have been fully considered but they are not persuasive.

On pages 4-5 applicant argues in substance:

A: Ho does not teach estimating signal routes between functional blocks.

Examiner respectfully disagrees for the following reasons:

As to point A: Ho taught estimating signal routes between functional blocks [fig. 1b elements 143, 147, and 149; col. 5 - 6, and col. 10]. In the cited portions of the Ho reference, Ho discloses estimating signal routes between functional blocks because Ho's connectivity based database, which includes nets, signal paths and blocks, col. 5, is further used for extractions and simulations. Therefore, Ho's connectivity based database is not a final calculation of the signal routes between functional blocks, and therefore reads as an estimation.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stacy A Whitmore whose telephone number is (703) 305-0565. The examiner can normally be reached on Monday-Thursday, alternate Friday 6:30am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling can be reached on (703) 308-3325. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

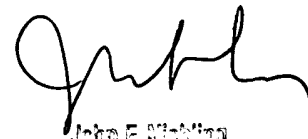
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Stacy Whitmore

July 10, 2002



John E. Hocking  
Supervisory Patent Examiner  
Technology Center 1100